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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,542	08/25/2003	Franz Zahradnik	TER-001115	3118
24131	7590	08/14/2006	EXAMINER	
LERNER GREENBERG STEMER LLP			TALBOT, BRIAN K	
P O BOX 2480			ART UNIT	
HOLLYWOOD, FL 33022-2480			PAPER NUMBER	

1762
DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,542

Applicant(s)

ZAHRADNIK ET AL.

Examiner

Brian K. Talbot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 10, 12-24 and 26-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-9, 11 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/25/03; 12/23/03; 1/15/04</u> | 6) <input type="checkbox"/> Other: _____ |

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1. Applicant's election of Group I, claims 1,2,5-9,11 and 25 in the reply filed on 6/1/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 3,4,10,12-24 and 26-28 are directed toward a non-elected invention or species and should be canceled in response to this Office Action.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

No claims directed to the molding itself. Only method claims remain.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2,7 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 2, the method “beam thermal/kinetic” is confusing. Clarification is requested. (see claim 25 as an example)

With respect to claim 7, the claim is confusing. Is this an additional step or is this describing the “treating” step? Clarification is requested.

With respect to claim 11, the claim is vague and indefinite as to how the material structure is being “varied”?

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,5-9,11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wojewnik (2002/0139472), WO-99/50099 or Davis Jr. et al. (6,161,889) in combination with Cado (3,042,591).

Wojewnik (2002/0139472) teaches a method of forming an electrical circuit on a substrate includes placing a masking film against the surface of the substrate, removing portion of the masking film and applying an electrically conductive material onto the exposed portions of the surface of the substrate (abstract). The substrate is a door trim panel having the electrical components ([0004]). Binding agent and electrically conductive material are integrally deposited

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and adhered to the substrate ([0005]-[0006]). The electrically conductive material is formed by spraying molten or powdered metal [0006], thermal spraying, plasma spraying or kinetic deposition [0042]-[0043]. The masking film may have an adhesive backing to improve the adhesion to the substrate, heating the masking material and removing the masking material to form the circuitry design for the subsequent electrically conductive material [0014]-[0042]. The substrate can alternatively be charged and the metallic powder spray can be oppositely charged to form the circuitry [0043].

WO-99/50099 teaches a method of forming an electrical circuit on a substrate includes placing a template against the surface of the substrate, applying an electrically conductive material onto the exposed portions of the surface of the substrate and removing the template. The electrically conductive material can be applied by thermal spraying (abstract, col. 3, lines 3-10, col. 8, line 12 – col. 10, line 12). Other plating means can also be used such as utilizing a slurry and molten metal paste. The substrate is a door trim panel having the electrical components (pg. 1, lines 8-13).

Davis Jr. et al. (6,161,889) teaches a ribbed trim panel for thermal spraying of electrical circuit. A trim panel includes a plurality of ribs projecting from a surface of the trip panel. Fluent conductive material is sprayed onto the ribs at an angle such that distinct electrical traces are formed on the ribs (abstract). The ribs allow the formation of the electrical traces to be formed without the need for a template (col. 1, lines 55-65). The ribs can be are formed by a variety of methods including molding, etching, embossing, etc. The electrical traces are formed by flame spraying (col. 2, lines 63-67).

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Wojewnik (2002/0139472), WO-99/50099 or Davis Jr. et al. (6,161,889) all fail to teach forming a “germination” layer after treating the substrate and prior to flame spraying.

Cado (3,042,591) teaches a process for forming electrical conductors on insulating substrates. The process includes roughening the substrate prior to applying a resist/mask followed by plating the conductors. In addition, Cado (3,042,591) teaches applying a sensitizer prior to apply the metal to form a patterned metal layer. A resist is applied and metal plating is formed on the patterned metal layer. The electrical conductor layers are applied by flame spraying (abstract and col. 3, line 45 – col. 6, line 75).

Therefore it would have been obvious for one skilled in the art to have modified Wojewnik (2002/0139472), WO-99/50099 or Davis Jr. et al. (6,161,889) electrical conductor process by incorporating a “catalyst” layer as evidenced by Cado (3,042,591) with the expectation of forming a more precise conductor trace with improved bonding.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Handwritten signature of Brian K Talbot and the date 9/9/06.

Brian K Talbot
Primary Examiner
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BKT